

POPSF 11.3.17.1 v.3

6/20/08

Doc No. 31

USEPA SF

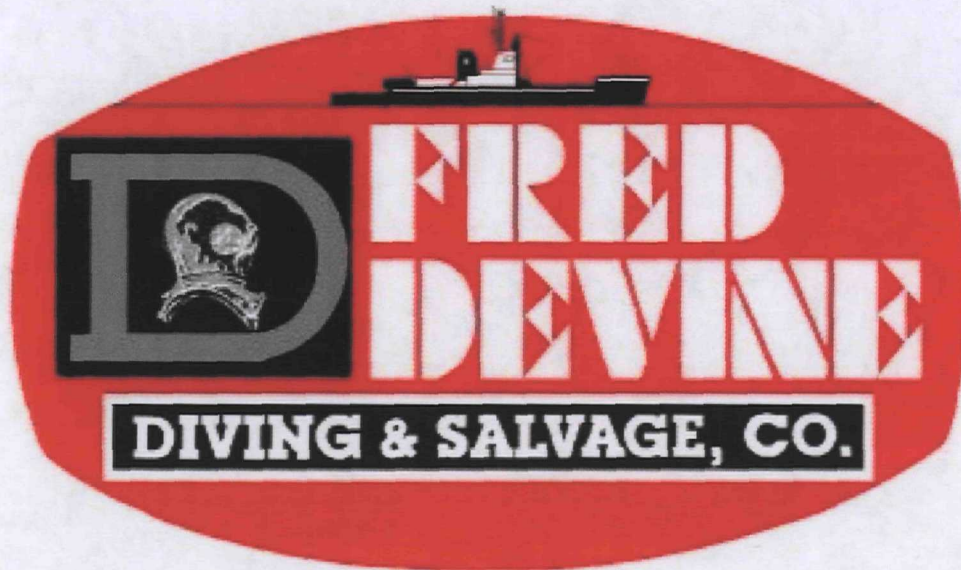


1363978

Fred Devine Diving & Salvage Co.

Marine Salvors, Divers & Constructors

6211 N Ensign • Portland, OR 97217



SAFETY AND HEALTH MANUAL

TABLE OF CONTENTS

STATEMENT OF POLICY	3
ADMINISTRATION.....	4
SAFETY TRAINING & EDUCATION	5
GENERAL REQUIREMENTS FOR ALL EMPLOYEES	6
SCAFFOLDS & LADDERS.....	9
TOOLS.....	10
WORK AROUND CRANE & OTHER HEAVY EQUIPMENT.....	12
WELDING & BURNING.....	13
FIRE PREVENTION & PROTECTION	14
PERSONAL SAFETY & PROTECTIVE CLOTHING/EQUIPMENT (PPE)	15
EQUIPMENT OPERATION/MOTOR VEHICLES.....	16
EQUIPMENT REPAIRS	17
HOUSEKEEPING.....	18
COMPRESSED AIR/COMPRESSED GASES	19
CONFINED SPACE ENTRY	
ELECTRICAL CORDS & CABLES.....	20
ELEVATED WORK PLATFORM & SURFACES	
FIRST AID	
FLAMABLE LIQUIDS.....	21
HAZARD COMMUNICATIONS	
MATERIAL HANDLING, STORAGE & DISPOSAL	22
KEEPING OUR WORKPLACE SAFE	24
SPILL PREVENTION & MANAGEMENT	25
DOCK GOOD HOUSEKEEPING	26
ELECTRICAL SAFETY	31
HEAVY EQUIPMENT & MATERIAL HANDLING & STORAGE	32
EMERGENCY SERVICES	39
EMERGENCY RESPONSE PLAN	40
COMMUNICATION DURING A DISASTER	41
TERRORISM PREPAREDNESS	43
ACKNOWLEDGEMENT OF RECEIPT OF SAFETY & HEALTH MANUAL	44

Fred Devine Diving & Salvage Co.

Marine Salvors, Divers & Constructors

6211 N Ensign•Portland, OR 97217

Tel: (503) 283-5285•Fax: (503) 286-2871

STATEMENT OF POLICY

Fred Devine Diving & Salvage Co. has a strong commitment to provide a safe workplace and to establish policies promoting high standards of employee health and safety, while delivering to the customer the highest quality service. In keeping with this commitment, it is the company's intent to maintain a Positive Safety Program and Substance Abuse Program. Our employees will conduct both themselves and their work in a safe manner consistent with good construction and marine practices.

Responsibility for achieving our safety goals is that of operation managers, supervisors and employees with the support of company management.

Fred Devine Diving & Salvage Co. has provided this manual to help you and your co-workers perform your jobs safely.

Most accidents are caused by human error. You have a responsibility to yourself, your co-workers and your family to follow these work rules and any other company safety rules that apply to job.

Fred Devine Diving & Salvage Co., will to the best of its ability, make certain that you are properly trained and know the safety rules for your job. Employees must work on their own safety attitudes and behavior in order to reduce injury.

The Occupational Safety and Health Act (OSHA) establishes both general and specific criteria for safety in the workplace in the United States. It is management's responsibility to make certain the Act and subsequent regulations applicable to this company are followed. Management may also adopt other safety rules in addition to those contained in this booklet.

We are all responsible for maintaining a safe work place. Violation of safety rules and procedures will not be tolerated. Accidents can be prevented if we all participate.

Please make safety your Number One priority.

J.H. Leitz

President

ADMINISTRATION

DUTIES OF THE OPERATIONS MANAGER

The responsibilities of the Fred Devine Diving & Salvage Co. Operations Manager include but are not limited to the Administration and implementation of the safety program for any Fred Devine Diving & Salvage Co. Project.

DUTIES OF THE SUPERVISOR

Assist the Operations manager in the discharge of safety duties as required for each project.

DUTIES OF EMPLOYEE

Comply with all safety regulations applicable to his/her own conduct.

Comply with all safety orders and instructions issued by his/her supervisor. Report all injuries, accidents, and recognized safety hazards to his/her supervisor.

Assist the Operations manager to implement Fred Devine Diving & Salvage Co.'s Hazard Communication Program. Report to his/her supervisor any unlabeled items that may come on to the site.

SAFETY PLANNING AND COORDINATION

Fred Devine Diving & Salvage Co.'s staff shall include a review of the project plan method, tools, equipment, protective equipment and personnel assigned to the task. The purpose of the review shall be to determine any potential unsafe conditions or acts inherent in the work and which safety rules or regulations may be applicable to control hazards.

Supervisors and foreman shall communicate this safety planning relating to the work to all employees when making work assignments.

SAFETY TRAINING AND EDUCATION

The Supervisor's have the primary responsibility for safety training and education on each project and shall conduct regularly scheduled safety meetings with their employees for this purpose.

1. Supervisors shall make each employee aware of all safety rules along with verbal instruction to read and obey all safety regulations therein.
2. Supervisors shall indoctrinate each new employee in basic safety requirements, as Follows:
 - a. Review employee safety duties as set forth in this Manual.
 - b. Review the required uses and care of personal protective equipment such as hard hats, eye protection, respirators, safety harness, etc.
 - c. See that each employee has instruction in the use of such items as power actuated tools, motor vehicles, etc.
 - d. Review procedures for obtaining first aid treatment and medical care for job related injuries.
3. Supervisors shall include, in all work assignments to each employee, instruction in the recognition and avoidance of unsafe conditions related to the work.
4. Where Supervisors find employees engaged in unsafe acts working in unsafe conditions, the Supervisor shall instruct the employees, on an individual basis, on the nature of the hazard, safety regulation violated and required protective action.
5. Foreman shall conduct weekly toolbox safety meetings with employee under their supervision. (see section on "Safety Meetings" for details).

GENERAL REQUIREMENTS FOR ALL EMPLOYEES

1. Failure to comply with Occupational Safety and Health Administration standards, State safety regulations, all other federal laws and standards, FDD&S Safety Manual, safety policy, and client safety rules may be cause for dismissal.
2. Possession or use of any alcohol, mind-altering drugs, or other controlled substance will be cause for immediate dismissal. Gambling, fighting, horseplay, or carrying firearms or other weapons on the job or in area under company control will be cause for dismissal.
3. Hard hats will be worn at all times, while in the project area; unless deemed unnecessary by Fred Devine Diving & Salvage Co. Operation Manager, due to the progress of the project.
4. Proper eye protection (safety glasses) will be worn when cutting, welding and grinding or where operations present potential eye or face injury.
5. Proper respiratory equipment will be worn when required.
6. Employees must report all injuries and illnesses, damage to machinery or equipment, near-miss incidents, suspected or identified hazards and unsafe conditions in the work place to a Fred Devine Diving & Salvage Co. supervisor immediately.
7. You are to report for work rested and physically fit to do your job.
8. Wear approved safe footwear that is in good condition for your job. Rubber soles are preferred with a nonskid, puncture-resistant sole.
9. Always wear clothing that is suitable for both the weather and your work. Torn or loose clothing and shirt tails worn outside trousers may be entangled or pulled into moving parts of machinery, tools, and equipment and are not permissible. Employees must be fully dressed in the workplace always. As a representative of the company, employees are expected to conduct themselves in a way that will reflect a positive image of the company.
10. Use gloves, aprons, or other suitable skin protection when handling rough material, chemicals and hot and cold objects. Replace when worn or damaged.
11. Jewelry (bracelets, neck chains, earrings, nose rings, etc.) should not be worn for the same reason mentioned number 9 listed above.

12. Good house keeping and fire prevention regulations will be maintained always. Keep your work area and the entire workplace as clean as possible. Never bypass a spill or debris without ensuring it is cleaned up. Employees are responsible for the housekeeping and cleanliness of their individual work area.
13. Refuse piles must be removed from work areas each day.
14. All equipment with moving parts will only be operated with guards in place. Never remove a machine guard or attempt to defeat its purpose.
15. Do not ride equipment loads, hooks, or headache balls. You are to remain seated with arms and legs inside the body of the moving vehicle.
16. Defective power or hand tools will not be used.
17. Only qualified operators will operate equipment, switches, valves, or other machinery.
18. All safe practices will be followed in hoisted or suspended loads.
19. Listen carefully to instructions. If you do not understand them, ask before starting work.
20. Follow instructions on all signs, posters, or hazard bulletins posted or issued.
21. Learn to lift properly. Bend with knees, keep back erect, and lift with the legs. Get help with heavy loads.
22. Flammable materials, electrical equipment, heating devices, compressed air, and pressure vessels will be handled according to OSHA, Federal and State Laws.
23. Pile and/or remove pile material carefully.
24. Make sure ladders are in good condition, set firmly and secured in place.
25. Use tools only for their intended purpose.
26. Do not start or move machinery, operate valves, or change electrical switches until you have determined that doing so is safe (Lockout/Tagout procedures).
27. Do not repair or adjust machinery while it is in operation. Never oil or clean moving parts. Never attempt to make unauthorized repairs or perform unauthorized service or maintenance on any machinery, equipment, or facilities. All equipment or machinery in need of repair must be tagged, removed from service, and reported to a supervisor immediately.
28. Do not disconnect air hoses at compressors until the line has been bled. Do not use more than 30 psi to blow down or for cleaning. Never turn compressor air on yourself or others.

29. Never work under vehicles or equipment supported by jacks or hoists without protective blocking.
30. Remove nails from lumber or bend them over.
31. Keep loose materials off stairs, walkways, ramps, platforms, etc. Never store anything on a stairwell. Never take more than one step at a time when using stairs and always have one hand free for the handrail.
32. Have a safe access to work areas. The safe way is the right way.
33. Do not block walkways, traffic lanes, or fire exits.
34. Avoid short cuts. Use ramps, stairs, walkways, ladders, etc. Always use prescribed passageways.
35. When entering different work area, familiarize yourself with hazards and required safety precautions.
36. Be sure of your footing. Watch out for stumbling hazards and fall hazards.
37. Be consistently aware of work going on around you and your surroundings. Keep clear of overhead work, suspended loads, traffic areas, etc.
38. Always have sufficient lighting in stair, in walkways and other works areas.
39. Place barricades and signs to warn traffic, overhead hazards, pinch points, etc. Use a flagman or watchman if necessary.
40. Never remove material that is being used for accident prevention or a safety barrier, such as barricade tape, safety cones or pylons, lockout or tag outs labels, unless the potential hazard no longer exists and your supervisor had advised you that it is permissible to do so.
41. Never attempt to catch falling object.
42. Each employee is directly responsible for proper care of company property, equipment and vehicles in his or her charge either temporary or permanently. Such equipment will be used in a safe and proper manner always.
43. Employees are required to attend scheduled safety meetings. Employees will be expected to demonstrate that they can perform their job assignment safely and without risk to themselves or others.
44. Employees are expected to follow all safety-related rules and regulations while on the premises of this company and when performing duties or acting for this company.
45. Employees must never put themselves or other workers at risk.

46. We will never expect that employees perform duties, tasks, or jobs that put them or others at risk. Employees assigned to perform such tasks must report their concerns to a supervisor immediately.

SCAFFOLDS AND LADDERS

1. Face ladders when climbing and use both hands. Use hand line or material for tools and unloads.
2. Use only safe ladders on a firm base. Angle ladder base from support one-fourth the working length of the ladder. Keep ladders free of debris.
3. Ladders must reach at least three feet above landing. Tie ladders off at top and secure the bottom. Brace long ladders.
4. Scaffold and ladders will conform to standards set forth by OSHA.
5. Use scaffolds on solid footing.
6. All scaffold decking will be secured to the scaffold frame and of sufficient strength to bear the intended load.
7. Keep scaffolds clear of debris and loose materials.
8. All scaffolds more than 6 feet above the ground or surrounding area will have top rails, intermediate rails, and toe boards according to OSHA standards, or some other means of 100% of fall protection.
9. All scaffolds and ladders are to be inspected daily and removed from use if found to be defective.
10. Use of metal ladders around electrical current is prohibited.
11. Ladders will only be used for their approved and intended purpose.
12. Use a proper, well-constructed ladder to reach working platforms when there is no standard means of access. Never use makeshift ladders of other items or materials to climb on.
13. No more than one person should ever be on a ladder at a time.
14. Another person prior to anchoring top of ladder should support ladders.
15. The two highest steps of a stepladder should never be used as steps.

16. When working from a ladder, place the ladder as near the work as possible. Do not overreach to perform work from a ladder.
17. Ladders will be maintained free of oil, grease and other slippery material.
18. Ladders will not be loaded beyond the maximum intended load.
19. The area around the top and bottom of a ladder will be kept clean.
20. Ladders will not be moved, shifted or extended while occupied. Do not walk ladders.
21. Do not work on scaffolds if your physical condition is such that you feel dizzy or unsteady in any way.
22. The scaffold base must be set on an adequate sill or pad to prevent slipping.
23. Do not build scaffolds near electrical power lines unless proper precautions are taken.

TOOLS

1. Keep all loose tools in a toolbox or secure them against falling dropping from work surfaces.
2. Operator and assistant shall wear safety glasses during powder actuated tool operation. Full-face shields shall be worn if there is danger of flying plaster, wood, metal or concrete.
3. The tools shall never be pointed at anyone, whether loaded or unloaded and hands shall be kept clear of the muzzle end.
4. Do not use worn or damaged tools. Do not use tools with cracked, broken or loose head or handles.
5. Do not use impact tools if have mushroomed heads.
6. Keep cutting tools sharp and carry them in a container (not in your pocket).
7. Know the correct use of power and hand tools before using them. Use the right tool for a particular job and use them only for the purpose for which they are intended.
8. Power actuated or assisted tools are to be operated only by a certified/qualified operator. Never point a powder-actuated tool at anybody. Before using a powder-actuated tool, inspect it to make sure that all moving parts operate freely, and that the barrel is free from obstruction. Do not load a powder-actuated tool unless it will be used immediately. Never leave a loaded tool unattended.
9. Operate equipment and tools within rated capacity and at safe speeds.
10. Consider all electric wires and cords as "live" electricity.

11. Keep a safe distance from "live" electricity.
12. Have electrical power tools and equipment properly grounded. Inspect tools and cords for damage before each use.
13. Do not use electrical power tools or equipment while standing in water.
14. All electric power tools and extension cords should have good insulation. Keep all cords away from heat, oil, and sharp objects.
15. Only qualified persons are to repair electric tools or equipment.
16. Secure all cords, leads, and hoses out of the work area to prevent damage to them and to prevent the hazard of tripping over them. Do not use wire to hang a cord, lead or hose,
17. Power saws will be equipped with guards.
18. Portable grinders will be equipped with guards.
19. Stationary grinders are to be equipped with guards, properly adjusted tool rests and an attached face shield.
20. Grinding wheels, both portable and stationary, are hazardous and will be checked for cracks, chips or other defects. Any defective wheel should be replaced immediately.
21. Do not operate any grinding wheel at any speed other than the rated speed.
22. Air tools are to be kept in good repair and checked for safe rpm. Defective tools are to be taken out of service immediately for repair or replacement.
23. Never used a hand grinder as a stationary grinder.
24. Tools need be collected and put away after each use.
25. Do not use hose or electric cord for hoisting or lowering tools or other materials. Never pull the cord to disconnect it from the receptacle, but pull the receptacle.
26. Keep moving parts of power tools pointed away from your body. Do not hold a finger on the switch button while carrying a plugged in tool.
27. Take special precautions when using power tool on a scaffold or other locations, which restrict movement.
28. Be sure that a power tool is off and motion has stopped before setting the tool down.

29. Disconnect the tool from the power source before changing drills, blades or bits or attempting repair or adjustment. Never leave a running tool unattended.

WORK AROUND CRANES AND OTHER HEAVY EQUIPMENT

1. Stay completely clear of overhead loads. Never walk under a suspended load for any reason.
2. Stay clear of swinging counterweights or superstructures. Swing radiuses should be barricaded. Creating a restricted access zone.
3. Do not climb on or off moving equipment.
4. All equipment, cranes and booms are to be kept at least 10 feet from energized power lines.
5. Only qualified employees are allowed to operate cranes.
6. A qualified flagman in full view of the operator will give or relay signals.
7. Tag lines are to be used on hoisted loads.
8. Be sure backup alarms are in working order.
9. Never leave a suspended load unattended. Always lower any load before leaving the area for any reason. Never exceed the posted rating on a crane or hoist.
10. Employees must stay clear of areas near or around crane and hoist operation unless it is absolutely necessary to be in the vicinity for a specific operation relating to the use of the crane or hoist.
11. Hooks and rigging used with overhead crane must be inspected daily for cracks, breaks, stretching and tearing. These inspections must be recorded.
12. Identified hazards, defects or malfunctions must be reported to a supervisor immediately.
13. Chains are not allowed for any hoisting operations, unless stamped by an engineer drawing but may be used for securing a load.

WELDING AND BURNING

1. Wear eye protection. (safety glasses and/or welder's shield).
2. Gas bottles will not be stored lying down.
3. Caps will be kept on all bottles when regulators are not in place.
4. Regulators are to be kept free of oil and leaks.
5. Flashback safety valves will be used on all hoses and lines at gauges or manifolds.
6. Properly securing bottles will be used for storage of acetylene and oxygen. Oxygen and acetylene bottles must be separated by a firewall in storage or separated by a minimum of 20 feet according to the MSDS.
7. Acetylene and oxygen bottles will be secured in an upright position when in use.
8. Employees and all work are to be protected for hot welding materials. This may involve the use of a fire watch with fire extinguisher, having a restricted access zone barricaded with sign and protecting materials with blankets.
9. Welders are required to wear hard hats with a hood attached while welding.
10. Welders helpers and all others working around welders are required to wear eye protection.
11. Respirators are required when exposed to toxic fumes.
12. Be sure you have adequate ventilation when welding.
13. Never attempt to operate welding machine or cutting torches or perform welding or cutting operations unless proper training and authorization are given.
14. Protective gloves and proper clothing must be worn when performing welding and cutting operations.
15. Welding and cutting operations must not be performed near or around flammable or combustible materials or fire hazards without adequate protective measures in place.
16. Fire extinguishers must be present at the site of any welding or cutting operation.
17. Welding machines, cutting torches and any attachments or apparatus must be visually inspected by the user or operator prior to each use. Defective or unsafe equipment is never to be used until repaired or replaced.

18. Always ensure that all workers and other persons that might be in the area are protected from harmful rays, sparks, hot material and any other hazards associated with the welding or cutting process. Employees authorized to perform welding and cutting operations must utilize all protective shielding provided for the protection of other employees exposed to the light created by the arc. Eye protection is required and mandatory when performing any type of welding or cutting operation, despite the circumstances or duration. (see # 10).

FIRE PREVENTION AND PROTECTION

1. Before using an open flame such as welding, etc., make certain proper fire extinguishers are in the immediate area.
2. Know location of fire extinguishers in your area and how to use them.
3. Make sure that all matches and smoking materials that you discard are out.
4. All "**NO SMOKING**" signs and areas are to be obeyed.
5. Smoking is forbidden when fueling equipment.
6. Flammables are to be stored and dispensed from approved safety cans.
7. Keep work areas free of combustible materials.
8. Smoking is not allowed within 50 feet of fuel storage or fuel dump areas.
9. Store oily rags in covered metal containers for disposal.
10. Never use an air hose or pressure to empty gasoline or flammable liquids from drums.
11. Keep salamanders or other heating equipment away from combustible materials.
12. Do not refuel a hot engine or an engine that is running. Clean up spills before starting.
13. Flammable liquid containers should be clearly labeled and stored in a separate isolated area and must be kept closed when not in use.
14. Make sure engines in building are away from combustibles and exhaust is properly ventilated.
15. Gasoline is to be used as a motor fuel only.
16. Never attempt to fight a fire unless trained and instructed to do so.

PERSONAL SAFETY AND PROTECTIVE CLOTHING/EQUIPMENT (PPE)

1. To do a job properly and safely, you must be in good physical condition.
2. Lift with your legs and not your back. Get help if the load is too heavy to lift. Do not attempt to lift more than can safely be handled.
3. Working without a shirt is harmful and is prohibited.
4. Hard hats will be worn on the entire job, or until Fred Devine Diving & Salvage Co. Managers deems unnecessary due to the progress of the project.
 - a. Workers must wear hard hats when overhead, falling, or flying hazards exist or when danger of electrical shock is present.
 - b. Inspect hard hats routinely for dents, cracks, or deterioration.
 - c. If a hard hat has taken a heavy blow or electrical shock, you must replace it even when you detect no visible damage.
 - d. Maintain hard hats in good condition; do not drill; clean with strong detergents or solvents; paint; or store them in extreme temperatures.
5. Different eye protection operations:
 - a. Safety glasses are minimal protection.
 - b. Full eye protection is required in operations such as grinding (mono-goggles face shield over safety glasses) cutting goggles only when using cutting torch.
 - c. Hoods and proper shaded lenses for welding. Check hoods for leaks.
 - d. Use goggles during reaming operations in the structures.
 - e. Eye protectors are designed for particular hazards so be sure to match the hazard.
 - f. Replace poorly fitting or damaged safety glasses.

NOTE: (When working close to any of these operations, you are also required to wear the same eye protection or shielded from operation.)

6. Do not wear loose clothing that can catch and hang up on objects or equipment.
7. All employees should wear gloves and hard-toe shoes.
 - a. High quality gloves can prevent injury.
 - b. Gloves should fit snugly.
 - c. Workers should always wear the right gloves for the right job.
8. Employees are required to use all personal protective equipment as assigned and instructed.
9. Never purposely alter or change personal protective equipment from the original condition.
10. Employees are required to maintain all personal protective equipment in a clean and sanitary condition at all times.

11. Report any malfunctions or deficiencies in personal protective equipment to a supervisor immediately.
12. Know the uses and limitations of any personal protective equipment before using it.
13. Proper clothing is considered to be personal protective equipment. Employees must be fully and adequately dressed at all times. A full shoe covering the entire foot must be worn always.

EQUIPMENT OPERATION /MOTOR VEHICLES

1. Only authorized persons are allowed to operate equipment. Unauthorized use of equipment is cause for dismissal.
2. Operators will not allow anyone to ride on equipment unless seats are provided for that purpose.
3. Operators are required to use seat belts when provided.
4. Operators will make certain that the equipment is not adjusted, repaired, or greased while in motion.
5. No one will climb on or about equipment while it is in motion.
6. All guards on equipment will be kept in place.
7. Crane operators will not allow persons to ride the hook or suspended load.
8. Crane or shovel booms will never be brought closer than 10 feet to power lines or telephone lines.
9. When a truck or pickup is used for transporting personnel, employees will be seated at all times with arms and legs inside the body of the truck.
10. All hoisting equipment will be operated on a firm, level foundation.
11. Standing or sitting on the running board, fender, hood headache rack, or on a load is prohibited.
12. Keep well away from the cable in towing or winching operations.
13. The operator is responsible for keeping equipment in safe operating condition and shall report defects or malfunctions to their foreman or supervisor immediately.
14. The operator is responsible for the safe operation of his equipment at all times.

15. Windshields are to be clean and free of cracks and obstructions.
16. Rollover protection is required on equipment, which may be exposed to the hazard of roll over.
17. The use of portable type radios (personal entertainment radios) will be prohibited.
18. Approach all intersections with caution. Jobsite 10 mph limit on projects.
19. Under no circumstances will and employee be allowed to operate a company vehicle with a detectable presence of alcohol in their system. Failure to comply with this policy results in immediate termination.
20. Company vehicles will be inspected daily by the driver to assure that the vehicle is in good mechanical condition. The driver of a company vehicle is responsible for the condition of the unit.
21. Intended use of company vehicles is for conduct of company business. No personal use allowed without prior authorization of management.
22. No other person is allowed to operate the vehicle except assigned driver or other authorized employee.
23. Unnecessary phone calls should be avoided. If it is necessary to use a cell phone while driving, common sense safety guidelines should be followed. All employees doing work-related duties that require the driving of company vehicles must become familiar with the written Cell Phone Policy While Driving program before driving company vehicles (see Fred Devine Diving & Salvage Co. Cell Phone Policy While Driving.)
24. It is the employee responsibility to make sure they have any necessary permits, etc. required in the vehicle prior to leaving Fred Devine Diving & Salvage Co. for any project.

EQUIPMENT REPAIRS

1. Only approved solvents are to be used in cleaning parts. The use of gasoline for cleaning is prohibited.
2. When it becomes necessary for you to work beneath a suspended machine or part of a suspended machine, it shall be blocked or cribbed.
3. Mechanics shall adhere to rules set forth for equipment operations.
4. Required personal protective equipment is to be worn when using solvents or any other hazardous material.

5. Be sure all equipment and vehicles are locked, the key out of the ignition and controls tagged-indicating to others that you are working on the machine.

HOUSEKEEPING

1. Good housekeeping is essential in accident prevention and should be a part of the daily routine with clean-up being a continuous procedure.
2. All excess materials shall be stacked with due regard to safety and allowance made for easy access.
3. The working area and all stairways, ladders and passageways shall be kept free from loose materials and debris.
4. Spills of oil, grease or bulk cement shall be removed immediately, in accordance with local, state and federal regulations.
5. Areas around saws or other wood working equipment shall be kept clean and free of excess scrap, chips and sawdust.
6. Paper drinking cups, lunch debris and trash shall be placed in trash barrels or dumpsters for removal from the area.
7. Remember, a clean job is a safe job.
8. Employees must ensure that their work area is kept clean, neat and orderly at all times. Employees identifying trash or other debris are responsible to ensure a pick up or clean up of whatever condition exists no-matter who caused or created it.
9. Liquid spills must be controlled and cleaned up immediately by the first person to identify the wet condition.

ABRASIVE GRINDING

1. Employees must ensure that all safety guards in place and adequately adjusted before operating any grinding machine.
2. Employees should never remove a safety guard from a grinding machine for any reason, other than service or maintenance of the equipment.
3. All electrically powered grinding machines used in the workplace must be grounded by wiring and double insulated.
4. Eye protection is required and will be enforced for employees operating machines and for anyone that might be exposed to projectiles or particles from the grinding operation.

5. Employees engaging in grinding operations will wear suitable clothing covering exposed skin that might be subject to cuts and abrasions from flying particles or projectiles created during grinding operations.

COMPRESSED AIR

1. Employees must always use air chucks that are approved, having holes or perforations on the side near the end.
2. Employees must use any protective barriers or shields provided to protect other employees from flying debris created by using compressed air. Employees must also take whatever steps necessary to ensure that other are protected when using compressed air.
3. Eye protection must be worn when using compressed air for any reason. Additional personal protective equipment may be necessary or required, such as face shields, gloves or other devices.
4. Compressed air must never be used to clean or blow off a person's skin or clothing.
5. Always roll up or put away all hoses and equipment used with compressed air so that it is out of the way of traffic and to ensure that it does not create trip or fall hazards. Hoses should be put away if leaving the area or not.

COMPRESSED GASES

1. Always support or tie off compressed gas cylinders or containers to prevent falling.
2. Always keep the protective cap on compressed gas cylinders or containers when not in use.
3. Always handle and maintain compressed gas cylinders in an upright position.
4. Never store compressed gas cylinders near pathways, walkways, emergency exit doors, or in an area where they could be struck by a motor vehicle or other equipment.
5. Keep flammable gases and oxidizers separated by at least 20 feet when not in use.
6. Keep compressed gases at least 20 feet away from flammable or combustible material.
7. Always treat all compressed gas cylinders and containers as if they were full.

CONFINED SPACE ENTRY

1. All employees doing work-related duties that require entry to confined spaces must become familiar with the written confined space program before initiating entry. This program may be found in the confined space section of this manual.

2. All employees must observe all warning signs. Never enter an area designated as hazardous or a permit entry area without authorization.
3. Always follow directions and instructions of your supervisor.
4. Maintain constant communications with the entry attendant while doing work in a confined space.
5. Plan routes of entry and escape before the initiation of work duties.
6. Evacuate the confined space at the first sign of problems or newly identified hazards.
7. Use all personal protective equipment as required by the confined space entry permit.
8. Never enter a confined space to attempt the rescue of an individual who is injured or unconscious unless you are trained in this procedure and are equipped with the appropriate personal protective equipment.

ELECTRICAL CORDS AND CABLES

1. Employees must never run flexible cords through any areas that may cause damage to the cord.
2. Employees must never run an electrical cord through a doorway or window unless cord is protected from abrasions or cuts.
3. Only approved industrial type electrical cords are to be used in the workplace.
4. Employees must ensure that any electrical cord used has the proper ground prong in place on the cord and the equipment being energized.
5. Adapters that allow for a bypass of the ground prong are never to be used in the workplace.
6. Employees must inspect electrical cords before each use to ensure that the cord is fully insulated and in safe working condition. Defective cords must be reported to a supervisor. Worn or frayed cords must not be used.
7. Employees must ensure that electrical cords and cables are kept out of walkways where they can create trip or fall hazards. Cords must be put away after each use and anytime they are to be left unattended.
8. Employees must ensure electrical cords in use are protected from accidental damage.
9. Electrical cords must never be run through water or used in wet damp locations or areas.

ELEVATED WORK PLATFORM AND SURFACES

1. Always hold a handrail when ascending or descending stairways.
2. Never throw tools, equipment or debris from elevated working surfaces.
3. Always ensure that removable railings are replaced when not in use.

FIRST AID

1. Employees must report any injury or illness, despite the severity or magnitude to an immediate supervisor.
2. Only trained and authorized personnel will attempt to provide first aid or CPR to anyone.
3. Never attempt to move a victim of an accident until a qualified person can assess their condition, unless the victim is in immediate danger in which they remain in the same location.
4. Never expose yourself to blood or other body fluids or potentially infectious materials without proper protective measures, such as personal protective equipment and proper clothing.
5. First aid kits and the supplies in them are intended to be used for self-treatment whenever possible. When medical attention is needed or necessary it will be provided.

FLAMMABLE LIQUIDS

1. Flammable liquids must be stored in their designated location at all times when not in use.
2. Flammable liquids must be stored in and used from adequate approved containers at all times.
3. All containers of flammable liquids must be kept closed when not in use.
4. Never attempt to pour flammable liquids from a large container such as a 55-gallon drum, into a smaller container. Use an approved self-closing nozzle or hand operated pump.
5. Always ensure that containers are grounded and electrically interconnected (bonded) before transferring liquids from one container to another.
6. Never use or store flammable liquids near sources of heat, flame or spark.
7. Flammable liquids may be used only in well-ventilated areas.

8. Rags and waste items or materials used in conjunction with flammable liquids must be placed in closed containers until discarded.

HAZARD COMMUNICATION

1. Become familiar with the written hazard communication program for the company. Know the location of this program and the material safety data sheet files.
2. The purpose of material safety data sheets is to provide information about what you are working with, what it can do to you, how to protect yourself and others from it and what to do in case of emergency.
3. Read warning labels and material safety data sheets for any substance used the present the possibility for exposure.
4. Always label the secondary container with the product name any associated hazards such as flammable, combustible, toxic, corrosive and any special precautions such as "do not store near heat" or "do not mix with water".
5. Always return unused substances to the original container or dispose of them safely.
6. Replace the cover or lid to any substance when not in use.
7. If assigned to a new or different job, ask questions and find out about chemicals, materials and substances you will be working with. Be aware of all substances that you are potentially exposed to despite who is in control of them.

MATERIAL HANDLING, STORAGE AND DISPOSAL

1. Employees must never lift objects that are heavy or hard to handle without some type of assistance.
2. Where lifting-assist devices are not available, assistance from other employees must be requested to lift heavy or awkward objects.
3. Always size the load and assess the object for weight, stability and balance before lifting it.
4. Plan the most direct and hazard free route of travel to the end destination of the object.
5. In making a lift:
 - Be sure you have firm and stable footing
 - Bend at your knees and not your waist, keeping your back straight.
 - Get a good firm grip on the object.

- Lift with your legs and not your back.
 - Keep the load close to your body.
 - Do not twist at the waist but turn and point your feet in the direction that your feet are moving or traveling with the load.
 - Load the load with the same movement used in lifting it.
6. If possible avoid lifting loads from below the knee or above the shoulders.
 7. If possible push a object along the floor rather than lifting it. Avoid pulling objects.
 8. Never reach or twist to pick up an object.
 9. Do not obstruct your view when lifting or carrying objects.
 10. Always lift with a smooth motion rather than jerking a load.
 11. Try to break large heavy loads into smaller lighter ones.
 12. Never attempt a lift that you feel you are not capable of making safely.
 13. Never lean over an object to lift another object.
 14. Be sure that the hoist or rigging equipment is in good working condition and that the rated load capacities are not exceeded.
 15. Do not stand or work under a suspended load at anytime.
 16. Make sure all materials stored in tiers are secured to prevent sliding, falling, or collapse.
 17. Do not stack materials too high or insecurely. Pipe unless racked will be properly tacked and blocked to prevent spreading.
 18. Keep aisles, passageways, fire lanes and work areas clear of unnecessary material.
 19. Keep oily rags and other flammable trash in covered metal containers.
 20. Keep aisles, passageways, fire lanes and work areas clear of waste material.
 21. Remove trash from the work area as soon as possible.
 22. The dropping of excess debris or scrap material to ground level must not be done without first ensuring there are no other employees working below and then exercising extreme care.

KEEPING OUR WORKPLACE SAFE

1. All employees are responsible for maintaining a safe workplace.
2. Management will respond appropriately to all reports of workplace aggression or violence.
3. Management will stop inappropriate behavior.
4. Management will support employees and supervisors in their efforts to prevent hostile acts at work.
5. There is no place in the workplace for aggressive, violent behavior or hostile acts and they will not be tolerated at Fred Devine Diving & Salvage Co.

SPILL PREVENTION & MANAGEMENT

Immediately contact management to report any incident.

No person shall cause pollution of any waters of the state or place or cause to be placed any wastes in a location where such wastes are likely to escape or be carried into the waters of the state by any means.

The following measures are generally appropriate for the containment of accidental spills of oil and hazardous materials:

Clean up efforts should commence immediately, taking precedence over normal work. Properly dispose of any spill wastes and used clean-up materials. In the event a spill occurs, the following steps should be performed as quickly as possible:

Minimize human exposure – evacuate non-responders.

Stop the spill at the source, if possible.

Contain the spill. Deploy containment booms to minimize the threat of a release to water or to minimize spread if the spill has reached the water.

On land, cover the spill with absorbent material such as kitty litter, sawdust or oil absorbent pads. Do not use straw.

Properly characterize the clean up waste and dispose of it to a facility authorized to handle that type of waste.

GOOD HOUSEKEEPING

See Appendix B for potential hazardous waste (listing of waste type and preferred disposal options.)

See Appendix C for Alternatives to toxic products.

Keep the dock clean at all times. Do not allow debris to accumulate and blow into the water.

Deck and hosing must not cause debris to be washed into drains or directly into receiving waters.

All facilities sediment traps and oil/water separators in the storm water drainage system should be inspected on a monthly basis and after each storm event. They should be cleaned as necessary to ensure the interception and retention of oils and solids entering the drainage system. Immediately clean any unit exceeding 50% stored sediment capacity.

Inspect sediment and grit traps associated with pressure washing after every use to insure that the unit is capturing the solids.

Remove oily sheen with a skimming device or absorbent pads. This oil should be managed as used oil.

Inspections can be done visually. Clean out can be done manually or by using a vacuum pump. Waste should be disposed of appropriately.

APPENDIX B

Potential Hazardous Waste Streams

WASTE TYPE	Preferred DISPOSAL OPTIONS
	If multiple options are listed, the first option(*) is the preferred method.
Antifreeze • Propylene glycol (usually pink) • Ethylene (usually green) glycol Contact your waste hauler to confirm that they will accept mixed antifreeze.	Recycle • Hire a waste hauler to collect and dispose. • Purchase an on-site recovery unit. Distillation systems are more expensive than filtration systems but are more efficient at renewing used antifreeze.
Waste Oil • Engine oil • Transmission fluid • Hydraulic oil • Gear oil • #2 Diesel • Kerosene Contact your waste hauler to confirm that they will accept mixed oil.	*Recycle with a registered used oil transporter. • Use waste oil for space heating in approved used oil burner • Take small quantities to a household hazardous waste/CEG collection events.
Quart Oil Cans	*Drain completely and dispose in regular trash. They cannot be recycled.
Non-Terneplated Oil Filters	*Puncture and completely hot drain for at least 24 hours. Recycle the oil and the metal canister. • If you do not recycle the canister, double-bag it in plastic and place it in your regular trash.
Terneplated Oil Filters (used in heavy equipment and heavy-duty trucks)	Dispose of as hazardous waste (contains lead).
Stale Gasoline	*Add stabilizer in the winter to prevent gasoline from becoming stale, or add octane booster in the spring to rejuvenate. Use the fuel. • Mix with fresh fuel and use. • Transport as non-hazardous waste if picked by a fuel blender to be used as fuel • Hire a hazardous waste hauler to collect and dispose of it.
Kerosene	Filter and reuse for as long as possible, then recycle.
Mineral Spirits	Filter and reuse. (DO NOT add to used oil to be burned in space heaters) If reuse not possible, then dispose of as hazardous waste

OREGON DEPARTMENT OF
ENVIRONMENTAL QUALITY

Solvents •	*Reuse as long as possible and then recycle. Consider a distillation unit for recycling solvents • Use less toxic alternatives to avoid disposal issues. • Dispose of as hazardous waste. (DO NOT add to used oil to be burned in space heaters)
Sludge Recovered from a Hazardous Solvent	Dispose of as hazardous waste.
Sludge Recovered from a Non-hazardous Solvent	Let sludge dry in a well-ventilated area, wrap in newspaper, and dispose of in garbage
Paints and Varnishes • Latex • Water-based • Oil-based	Water Based: • Allow to dry completely. Dispose of in regular trash. Oil/Solvent Based: • Dispose of as hazardous waste Water Based and Oil Based: • Use leftover material for other projects, (i.e., as an undercoat for the next boat). • Encourage tenants to swap unused material.
Paint Brushes	Allow to dry completely prior to disposal. Treat as hazardous waste if paint contains heavy metals above regulatory levels.
Rags Soaked with Hazardous Substances	Use rag service and do not dispose of rags Keep in covered container until ready for pickup. • Wring rags out over a waste solvent collection container and have laundered by an industrial laundry. • If rag service is not used, perform hazardous waste determination; dispose of as hazardous waste if appropriate.
Used Oil Absorbent Material	*If oil and diesel is adequately absorbed, discard in trash.
Used Bioremediating Bilge Booms	*Discard in regular trash as long as no liquid is dripping. Because the microbes need oxygen to function, do not seal in plastic.
Epoxy and Polyester Resins	*Catalyze and dispose of as solid waste AS LONG AS IT DRIES HARD AND HAS NO FREE LIQUIDS AND FACILITY IS A CONDITIONALLY EXEMOT GENERATOR (CEG) OF HAZARDOUS WASTE.
Glue and Liquid Adhesives	Catalyze and dispose of as solid waste.
Containers • Paint cans • Buckets • Spent caulking tubes	Cans may be put in trashcan as long as: • All material that can be removed has been. (For example, in a 55-gallon drum, no more than 1" of residue remains on the bottom or inner liner.) • Containers that held compressed gas are at atmospheric pressure. • Containers that held acute hazardous waste have been triple rinsed with the appropriate (as listed on the container) solvent. Properly dispose of the solvent.

OREGON DEPARTMENT OF
ENVIRONMENTAL QUALITY

Aerosol cans	Aerosol Cans should punctured in a safety device: Collect the residue; manage as potentially hazardous waste. Punctured empty cans maybe recycled under the scrap metal exemption (if your scrap hauler takes them). Unpunctured cans are considered reactive waste and therefore should be disposed of as hazardous waste.
Residue from Sanding, Scraping, and Blasting	Evaluate this waste and document whether the residue is hazardous (does not contain metals). *Dispose of as solid waste. *If it contains metals, it is a hazardous waste or special waste and must be disposed of properly. If it contains tributyl tin, it is a pesticide and considered an Oregon State hazardous waste
Residue from Pressure Washing	*Dispose of as solid waste.
Lead Batteries (encourage the use of maintenance free batteries)	*Recycle • Store on an impervious surface, under cover. Protect from the rain. • Check frequently for leakage. Automotive batteries are exempt if recycled. Other batteries should be labeled as universal waste. If not recycled, batteries containing acid and heavy metals are hazardous waste.
Expired Distress Signal Flares	*Encourage boaters to keep on board as extras. • Store in well-marked, fire safe container. Use expired flares to demonstrate to boaters how they are used. Be sure to notify the Coast Guard and fire department ahead of time. • Encourage boaters to bring flares to a local fire department or household hazardous waste collection program. If disposed of, the flares are hazardous waste.
Scrap Metal	Recycle
Light Bulbs • Fluorescent bulbs • Mercury vapor lamps • High-pressure sodium vapor lamps • Low-pressure sodium vapor lamps • Metal halide lamps	*Recycle if you have more than a few. • These are considered universal waste if recycled. • Label as universal waste and insure that light tubes do not break. If not recycled, waste lamps may be hazardous waste.
Pesticides	*Use as product If disposed at a collection event or at hazardous waste facility, unused pesticides may be a universal waste.
Pesticide Containers	Must be rinsed - use rinsate as makeup for next batch of pesticide if possible or spray it out through sprayer. Unrinsed containers are either hazardous waste or universal waste.

APPENDIX C

Alternatives to Toxic Products

Product	Alternative
Bleach	Borax
Detergent & Soap	Elbow grease
Scouring Powders	Baking soda. Or rub area with one-half lemon dipped in borax, then rinse
General Cleaner	Baking soda and vinegar. Or lemon juice combined with borax paste
Floor Cleaner	One cup vinegar in 2 gallons of water
Window Cleaner	One cup vinegar + 1 qt. warm water. Rinse and squeegee
Aluminum Cleaner	2 Tbsp. cream of tartar + 1 qt. of hot water
Brass Cleaner	Worcestershire sauce. Or paste made of equal amounts of salt, vinegar and water
Copper Cleaner	Lemon juice and water. Or paste of lemon juice, salt, and flour
Chrome Cleaner/Polish	Apple cider vinegar to clean; baby oil to polish
Stainless Steel Cleaner	Baking soda or mineral oil for polishing, vinegar to remove spots
Fiberglass Stain Remover	Baking soda paste
Mildew Remover	Paste with equal amounts of lemon juice and salt, or white vinegar and salt
Drain Opener	Dissemble or use plumber's snake. Or flush with boiling water + one-quarter cup baking soda + one-quarter cup vinegar
Wood Polish	Olive or almond oil (interior walls only)
Hand Cleaner	Baby oil or margarine
Head & Shower	Baking soda; brush thoroughly
Rug/Upholstery Cleaner	Dry corn starch sprinkled on; vacuum

ELECTRICAL SAFETY

1. All electrical work installation and wire capacities, both temporary and permanent, shall be in accordance with the National Electrical Code.
2. All electrical equipment whether portable or fixed shall be grounded.
3. Portable tools, which are double insulated, need not be grounded.
4. All extension cords and cords on plug connected equipment shall be three wire type, equipped with three prong plugs or double insulated which meet OSHA requirements. No flat cords may be used.
5. Temporary lighting shall be equipped with guards to prevent accidental contact with the bulb. Temp lighting will have independent suspension unless otherwise designed. Fluorescent temporary lighting will have a guard over the lamps to prevent accidental discharge of the lamp from the fixture.
6. Aisles, stairs and walkways shall be kept clean of electric cords or cable so as not to present a tripping hazard. Unused cord and cables shall be picked up and stored away.
7. Cords with worn, frayed or broken insulation or with loose plugs (caps) shall not be used.
8. All switches, circuit breakers, receptacles and fuse boxes, which may be exposed to water, shall be protected so that water does not enter.
9. Makeshift connections in welding leads are prohibited. All connections shall be insulated.
10. Site safety shall enforce the use of Ground Fault Circuit Interrupter Devices by contractor's workers on all electrical tools and extension cords.

HEAVY EQUIPMENT & MATERIAL HANDLING & STORAGE

CRANE SAFETY

1. Cranes shall not be operated beyond their rated capacities and limits. Rated load capacities, recommended operating speeds and manufacturers operating instructions shall be conspicuously at the operator's station.
2. Illustrated hand signals for cranes shall be posted on the crane.
3. Only one person shall be designated as signalman. He shall be stationed in full view of the operator and use-approved signals as posted on the crane or radio systems may be utilized.
4. The operator or oilier shall inspect the crane prior to and during each use to make sure it is in safe operating condition. All defects shall be corrected before continued use.
5. Accessible areas with the swing radius of the rotating superstructure of cranes shall be barricaded in such a manner as to prevent an employee from being struck or crushed by the crane.
6. An multi-class dry chemical type fire extinguisher shall be located at the operator's station or in the crane cab at all times.
7. No part of crane is permitted to come within less than 10 feet of any energized electric lines as a minimum; this may increase due to high voltage.
8. All booms and jibs shall have positive stops to prevent their movement beyond 5 degrees of vertical. Cable type belly slings are not acceptable as boom or job stops.
9. Lifting bridles for platforms shall consist of four legs attached so that the stability of the platform is ensured. The bridle shall be secured by a shackle or attached by a closed hook, which cannot be opened due to position of load on the hook.
10. The platform and its components must be able to support at least four times the maximum intended load.
11. The platform should be enclosed with a guardrail system, including a top rail of approximately 42 inches, a mid rail and a toe board. The guardrail system should withstand a load at least 200 pounds applied in any direction.
12. Platforms should not be used during high winds, electrical storms, snow or other adverse weather conditions, which could endanger workers.

13. Unless communications equipment such as a telephone, radio or their equivalent is present, the employer should ensure that standard Hand Signals to the crane operator are used in accordance with OSHA regulation 1926.550(a) (4). The signal should be visible or audible to the crane operator at all times.

PARKING VEHICLES

Wheels of rubber tire vehicles parked on ramps or inclined surfaces shall be locked or chocked. Parking brakes shall be set.

AERIAL LIFTS

Aerial Lifts include aerial device to elevate employees on sites above the ground and may include extendable boom platforms, aerial ladders, articulating boom platforms, vertical towers and a combination of any of these. All are subject to the following requirements.

1. Only authorized persons shall operate an aerial lift.
2. Belting off to an adjacent pole, structure or equipment while working from an aerial lift shall not be permitted.
3. A safety harness shall be worn and a lanyard attached to the boom, basket, platform or railing when working from an aerial lift.
4. Brakes shall be set and when outriggers are provided, they shall be fully extended and set in place on pads or a solid, surface.
5. An aerial lift shall not be moved when elevated in the working position with workers on the lift unless the equipment is specifically designed for this type of operation in accordance with the manufactures specifications.
6. Aerial lift design as personnel carriers shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide an overriding of the upper controls. Controls shall be plainly marked as to their function. Lower controls shall not be operated without the permission of the employee on the lift, except in case of an emergency.
7. Platform of aerial lifts shall be equipped with standard guardrails and toe boards.

RIGGING

1. Rigging equipment shall be inspected prior to each use so as to ensure that it is safe to use. Defective equipment shall be removed from service.
2. Rigging equipment shall not be loaded in excess of its recommended safe working load.

3. Rigging equipment, when not in use, shall be removed from the immediate work area so as not to present a tripping hazard to employees.
4. Make-shift fasteners, formed from bolts, rods, wire, etc. shall not be used.
5. Wire rope cables shall not be secured by knots for any purpose.
6. Wire rope cables, used in hoisting, lowering or pulling loads, shall consist of one continuous piece without knots or splices.
7. When U-bolts wire rope clips are used to form eyes or loops in any load bearing cable, a minimum of three (3) clips shall be used. Clips shall be applied so that the "SADDLE" portion of the clip is not in contact with the dead end of the cable.
8. Hooks used for lifting should be equipped with a safety latch; unless other safer means is available.

STORAGE AND USE OF FLAMMABLE LIQUIDS

Storing and using flammable and combustible liquids shall comply with state, local and OSHA regulations 1926.153 (a) and (g).

1. Only approved U.L. safety cans must be used for handling and storing flammable liquids. Once a drum of flammable liquid has been opened, it must be provided with U.L. ground and bond system, dispensing system and vent bung.
2. Provide adequate ventilation in areas where flammable and combustible liquids are stored or in use. Employee shall comply with Local Municipal Fire Safety Codes and OSHA regulations 1926.55, (a) and (c) and 1926.57 (a) through (3).
3. Use U.L. approved fire extinguishers in areas where flammable and combustible liquids are stored or in use.
4. All areas where flammable and combustible liquids are stored and used shall be kept clear of debris and sources of ignition.

COMPRESSED GAS CYLINDERS

1. All compressed gas cylinders, whether full or empty, in use or in storage, shall be secured in an upright position at all times.
2. Cylinders not in use shall be capped.
3. When in storage, oxygen cylinders shall be separated from other types of compressed gas cylinders by at least 20 feet or by fireproof barrier.

4. The storage of propane cylinders inside buildings is prohibited. Cylinders not hooked up for use are considered to be in storage.
5. Propane cylinders hooked up for use need not be secured providing that they stand firm, level and stable footing.

WELDING & TORCH CUTTING

When cylinders are hoisted, they shall be secured on a cradle, sling board, or pallet. They shall not be hoisted or transported by means of magnets or choker slings.

Cylinders shall be moved by tilting and rolling them on their bottom edges. They shall not be intentionally dropped, struck, or permitted to strike each other violently.

When cylinders are transported by powered vehicles, they shall be secured in a vertical position.

Valve protection caps shall not be used for lifting cylinders from one vertical position to another. Bars shall not be used under valves or valve protection caps to pry cylinders loose when frozen. Warm, not boiling, water shall be used to thaw cylinders loose.

Unless cylinders are firmly secured on a special carrier intended for this purpose, regulators shall be removed and valve protection caps put in place before cylinders are moved.

When work is finished, when cylinders are empty, or when cylinders are moved at any time, the cylinder valve shall be closed.

Compressed gas cylinders shall be secured in an upright position at all times except, if necessary, for short periods of time while cylinders are actually being hoisted or carried.

Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials (especially oil or grease), a minimum distance of 20 feet (6.1 m) or by a noncombustible barrier at least 5 feet (1.5 m) high having a fire-resistance rating of at least one-half hour.

Inside of buildings, cylinders shall be stored in a well-protected, well-ventilated, dry location, at least 20 feet (6.1 m) from highly combustible materials such as oil or excelsior. Cylinders should be stored in definitely assigned places away from elevators, stairs, or gangways. Assigned storage places shall be located where cylinders will not be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons. Cylinders shall not be kept in unventilated enclosures such as lockers and cupboards.

The in-plant handling, storage, and utilization of all compressed gases in cylinders, portable tanks, rail tank cars, or motor vehicle cargo tanks shall be in accordance with Compressed Gas Association Pamphlet P-1-1965.

Cylinders shall be kept far enough away from the actual welding or cutting operation so that sparks, hot slag, or flame will not reach them. When this is impractical, fire resistant shields shall be provided.

Cylinders shall be placed where they cannot become part of an electrical circuit. Electrodes shall not be struck against a cylinder to strike an arc.

Fuel gas cylinders shall be placed with valve end up whenever they are in use. They shall not be placed in a location where they would be subject to open flame, hot metal, or other sources of artificial heat.

Cylinders containing oxygen or acetylene or other fuel gas shall not be taken into confined spaces.

Cylinders, whether full or empty, shall not be used as rollers or supports.

No person other than the gas supplier shall attempt to mix gases in a cylinder. No one except the owner of the cylinder or person authorized by him shall refill a cylinder. No one shall use a cylinder's contents for purposes other than those intended by the supplier. All cylinders used shall meet the Department of Transportation requirements published in 49 CFR Part 178, Subpart C, Specification for Cylinders.

No damaged or defective cylinder shall be used.

Before a regulator to a cylinder valve is connected, the valve shall be opened slightly and closed immediately. (This action is generally termed "cracking" and is intended to clear the valve of dust or dirt that might otherwise enter the regulator.) The person cracking the valve shall stand to one side of the outlet, not in front of it. The valve of a fuel gas cylinder shall not be cracked where the gas would reach welding work, sparks, flame, or other possible sources of ignition.

The cylinder valve shall always be opened slowly to prevent damage to the regulator. For quick closing, valves on fuel gas cylinders shall not be opened more than 1 1/2 turns. When a special wrench is required, it shall be left in position on the stem of the valve while the cylinder is in use so that the fuel gas flow can be shut off quickly in case of an emergency. In the case of manifold or coupled cylinders, at least one such wrench shall always be available for immediate use. Nothing shall be placed on top of a fuel gas cylinder, when in use, which may damage the safety device or interfere with the quick closing of the valve.

Fuel gas shall not be used from cylinders through torches or other devices which are equipped with shutoff valves without reducing the pressure through a suitable regulator attached to the cylinder valve or manifold.

Before a regulator is removed from a cylinder valve, the cylinder valve shall always be closed and the gas released from the regulator.

If, when the valve on a fuel gas cylinder is opened, there is found to be a leak around the valve stem, the valve shall be closed and the gland nut tightened. If this action does not stop the leak,

the use of the cylinder shall be discontinued, and it shall be properly tagged and removed from the work area. In the event that fuel gas should leak from the cylinder valve, rather than from the valve stem, and the gas cannot be shut off, the cylinder shall be properly tagged and removed from the work area. If a regulator attached to a cylinder valve will effectively stop a leak through the valve seat, the cylinder need not be removed from the work area.

If a leak should develop at a fuse plug or other safety device, the cylinder shall be removed from the work area.

Fuel gas and oxygen manifolds shall bear the name of the substance they contain in letters at least 1-inch high which shall be either painted on the manifold or on a sign permanently attached to it.

Fuel gas and oxygen manifolds shall be placed in safe, well ventilated, and accessible locations. They shall not be located within enclosed spaces.

Manifold hose connections, including both ends of the supply hose that lead to the manifold, shall be such that the hose cannot be interchanged between fuel gas and oxygen manifolds and supply header connections. Adapters shall not be used to permit the interchange of hose. Hose connections shall be kept free of grease and oil.

When not in use, manifold and header hose connections shall be capped.

Nothing shall be placed on top of a manifold, when in use, which will damage the manifold or interfere with the quick closing of the valves.

Fuel gas hose and oxygen hose shall be easily distinguishable from each other. The contrast may be made by different colors or by surface characteristics readily distinguishable by the sense of touch. Oxygen and fuel gas hoses shall not be interchangeable. A single hose having more than one gas passage shall not be used.

When parallel sections of oxygen and fuel gas hose are taped together, not more than 4 inches out of 12 inches shall be covered by tape.

All hose in use, carrying acetylene, oxygen, natural or manufactured fuel gas, or any gas or substance which may ignite or enter into combustion, or be in any way harmful to employees, shall be inspected at the beginning of each working shift. Defective hose shall be removed from service.

Hose which has been subject to flashback, or which shows evidence of severe wear or damage, shall be tested to twice the normal pressure to which it is subject, but in no case less than 300 p.s.i. Defective hose, or hose in doubtful condition, shall not be used.

Hose couplings shall be of the type that cannot be unlocked or disconnected by means of a straight pull without rotary motion.

Boxes used for the storage of gas hose shall be ventilated.

Hoses, cables, and other equipment shall be kept clear of passageways, ladders and stairs.

Clogged torch tip openings shall be cleaned with suitable cleaning wires, drills, or other devices designed for such purpose.

Torches in use shall be inspected at the beginning of each working shift for leaking shutoff valves, hose couplings, and tip connections. Defective torches shall not be used.

Torches shall be lighted by friction lighters or other approved devices, and not by matches or from hot work.

Regulators and gauges. Oxygen and fuel gas pressure regulators, including their related gauges, shall be in proper working order while in use.

Oil and grease hazards. Oxygen cylinders and fittings shall be kept away from oil or grease. Cylinders, cylinder caps and valves, couplings, regulators, hose, and apparatus shall be kept free from oil or greasy substances and shall not be handled with oily hands or gloves. Oxygen shall not be directed at oily surfaces, greasy clothes, or within a fuel oil or other storage tank or vessel.

FIRE WATCH

When the welding or torch cutting operation is such that normal fire prevention precautions are not sufficient, additional personnel shall be assigned to guard against fire while the actual work is being performed and for a sufficient period after completion of the work to ensure that no possibility of fire exists.

EMERGENCY SERVICES

First Aid Kit – A first aid kit suitable for treating minor injuries, which do not require the services of a professional medical personnel shall be available. All employees shall conspicuously place it where it is readily accessible for use. The contents of the kit shall be checked periodically and expended items replaced.

Physician or Medical Clinic – Posted shall be the address and telephone number of the nearest physician or medical clinic for treatment of employees with injuries requiring more than simple first aid but which are not serious.

Hospitals – Posted shall be the name, address and phone number of the nearest hospital for treatment of employees with serious injuries.

Ambulance Service – Posted shall be the name, address and phone number of the nearest ambulance service. Since most local fire departments provide excellent ambulance service with paramedic or rescue squad capabilities, their services are preferred over private ambulance services. Where ambulance service is not readily available to the project site in terms of time and distance, alternate means of transportation must be provided.

CPR Program (Cardio-Pulmonary Resuscitation) – Medical records show that a high percentage of victims of otherwise fatal heart attacks may be saved if proper emergency first aid procedure for heart attack is CPR (cardio-pulmonary resuscitation). All employees trained in this procedure should make themselves available in an emergency.

EMERGENCY RESPONSE PLAN

(TO BE POSTED ON WALL)

PURPOSE: TO PROVIDE A PROCEDURE OF RESPONDING TO EMERGENCIES AND/OR INCIDENTS FOR EMPLOYEES

OBJECTIVE: TO IDENTIFY KEY RESPONSIBILITIES AND ASSIGNMENTS IN CASE OF EMERGENCY.

FRED DEVINE DIVING & SALVAGE CO. WILL MAKE SURE THAT THERE WILL BE SOMEONE AT THE ENTRANCE OF THE ACCIDENT AREA TO DIRECT EMERGENCY CREWS INTO THE SITE.

PERSONNEL INJURED ON THE PROJECT WILL RECEIVE IMMEDIATE FIRST AID. INJURIES OR A MORE SEVERE NATURE WILL BE TRANSPORTED TO THE FOLLOWING OR **ANY OTHER CLOSER APPROPRIATE MEDICAL FACILITY:**

CLINIC:

Concentra Medical Center
3449 N Anchor St. Suite A
Portland, OR 97217
Telephone Number: (503) 283-0013
Hours M-F 7am-4:30pm

HOSPITAL:

Legacy Emanuel Hospital
2801 N. Gantenbein Ave.
Portland, OR 97227
Telephone Number: (503) 413-2220

FIRE & POLICE DEPARTMENT:

DIAL 911

FRED DEVINE DIVING & SALVAGE CO. EMERGENCY CONTACT LIST:

Fred Devine Diving & Salvage Co.
6211 N Ensign Street
Portland, OR 97217
OFFICE (503) 283-5285
MICK LEITZ CELL (503) 329-3741
MARVIN SMITH CELL (503) 407-1888
SHERRI GERNAND CELL (503) 730-6454

CITY OF PORTLAND

Communication During a Disaster

To report an emergency:

1. Call 911.
2. If your telephone does not work, check to see if a neighbor's phone works.
3. If no telephone works, you can try a cell phone. Don't count on it working though, as these often depend on landlines, and they may also be overloaded.
4. Go to a fire station to report your emergency. Be aware that during a disaster, crews are likely to be already working at an emergency scene, in which case they won't be in the station. During a major extended emergency, additional staff will be assigned to take emergency reports during a phone system outage.
5. For a life-threatening medical emergency, you may need to go directly to the hospital emergency department. Have someone besides the sick or injured person drive.

To report other conditions:

1. Gas, water or electric outages, call the appropriate utility provider at the number listed in the phone book.
2. Portland Police non-emergency number, call 503-823-3333.
3. City Information line 503-823-4000
4. Down Trees 503-823-4489
5. Mental Health Crisis Line 503-988-4888
6. Sewer, Repair Emergencies 503-823-1700
7. Traffic Signals not working 503-823-1700
8. Water Main Breaks 503-823-4874

To get information during a disaster:

- | |
|--|
| 1. Turn on your television or radio to a local station. Use battery-operated radio (or car radio) if electrical power is out. |
| 2. If your home is in a location where immediate action is necessary (evacuate, shelter in place, etc), you may receive a telephone call with basic instructions via the <u>Portland Emergency Notification System (PENS)</u> . |
| 3. Emergency personnel may also be canvassing the area to provide emergency direction, or triaging for damage and casualties. |

To help the communication system work during an emergency:

- | |
|--|
| 1. Do not make unnecessary phone calls. They will only add calls to an overloaded system and may prevent emergency calls from getting through. |
| 2. When you get reliable information, share it with your neighbors. |

Terrorism Preparedness

- Prepare to deal with a terrorist incident by adapting many of the same techniques used to prepare for other crises.
- Be alert and aware of the surrounding area. The very nature of terrorism suggests that there may be little or no warning.
- Take precautions when traveling.
- Be aware of conspicuous or unusual behavior.
- Do not accept packages from strangers.
- Do not leave luggage unattended.
- Learn where emergency exits are located. In an unfamiliar building be aware of your immediate surroundings including your closest exits.
- Be aware of heavy or breakable objects that could move, fall or break in an explosion.
- People who live or work in a multi-level building can do the following: Review emergency evacuation procedures and know where fire exits are located.
- Create an emergency communications plan with an out-of-town family member or friend that will be unlikely to be affected by the same emergency.

Fred Devine Diving & Salvage Co.

I acknowledge that I have received and read a copy of the Fred Devine Diving & Salvage Co.
Safety & Health Manual.

Date _____

Employee Name (Please Print) _____

Employee Signature _____

Social Security Number _____